WHAT IS CLAIMED IS:

1. An electron-emitting apparatus comprising:

electron-emitting devices;

driving wires connected to said electron-emitting devices;

an electron source substrate on which said electron-emitting devices and said driving wires are ~~arraged,~~ arranged

an acceleration electrode mounted at a position facing said electron source substrate, said acceleration electrode being applied with an acceleration potential for accelerating electrons emitted from said electron-emitting devices;

a potential supply path for supplying the acceleration potential to said acceleration electrode, said potential supply path being introduced via an intermediate area on the side of said electron source substrate;

a first wire formed around the intermediate area; and

a resistor film formed between said first wire and the intermediate area, said resistor film electrically connected with said potential supply path and said first wire.

2. An electron-emitting apparatus according to claim 1, wherein said first wire is formed separately

from said driving wires.

3. An electron-emitting apparatus according to claim 1, wherein said first wire surrounds completely a periphery of the intermediate area.

4. An electron-emitting apparatus comprising:

electron-emitting devices;

driving wires connected to said electron-emitting devices;

an electron source substrate on which said electron-emitting devices and said driving wires are arranged;

an acceleration electrode mounted at a position facing said electron source substrate, said acceleration electrode being applied with an acceleration potential for accelerating electrons emitted from said electron-emitting devices;

a potential supply path for supplying the acceleration potential to said acceleration electrode, said potential supply path being introduced via an intermediate area on the side of said electron source substrate;

a first wire provided separately from said driving wires and formed on a ~~creepage~~ surface between the intermediate area and said driving wires; and

a resistor film formed on a ~~creepage~~ surface

between said first wire and the intermediate area, said resistor film electrically connected with said potential supply path and said first wire.

5. An electron-emitting apparatus according to claim 1, wherein said first wire is applied with a predetermined potential.

6. An electron-emitting apparatus according to claim 4, wherein said first wire is applied with a predetermined potential.

7. An electron-emitting apparatus according to claim 5, wherein said first wiring is formed separately from said driving wires, and a potential difference between the predetermined potential and the acceleration potential is larger than a potential difference between the predetermined potential and a potential applied to said driving wires.

8. An electron-emitting apparatus according to claim 6, wherein said first wiring is formed separately from said driving wires, and a potential difference between the predetermined potential and the acceleration potential is larger than a potential difference between the predetermined potential and a potential applied to said driving wires.

9. An electron-emitting apparatus according to claim 5, wherein said first wiring is formed separately from said driving wires, and the predetermined potential is approximately a potential applied to said driving wires.

10. An electron-emitting apparatus according to claim 6, wherein said first wiring is formed separately from said driving wires, and the predetermined potential is approximately a potential applied to said driving wires.

11. An electron-emitting apparatus according to claim 1, wherein said first wire is a ring shape wire.

12. An electron-emitting apparatus according to claim 4, wherein said first wire is a ring shape wire.

13. An electron-emitting apparatus according to claim 1, wherein said first wire is formed so that each portion of said first wire is at an equal distance from each portion of the intermediate area most nearest to each portion of said first wire.

14. An electron-emitting apparatus according to claim 2, wherein said first wire is formed so that each

portion of said first wire is at an equal distance from each portion of the intermediate area most nearest to each portion of said first wire.

15. An electron-emitting apparatus according to claim 1, wherein said first wire is connected to an earth.

16. An electron-emitting apparatus according to claim 2, wherein said first wire is connected to an earth.

17. An electron-emitting apparatus according to claim 1, wherein said resistor film has a sheet resistance of 1×10^9 Ω/□ or higher.

18. An electron-emitting apparatus according to claim 4, wherein said resistor film has a sheet resistance of 1×10^9 Ω/□ or higher.

19. An electron-emitting apparatus according to claim 1, wherein said resistor film has a sheet resistance of 1×10^{16} Ω/□ or lower.

20. An electron-emitting apparatus according to claim 4, wherein said resistor film has a sheet

resistance of 1×10^{16} Ω/□ or lower.

21. An electron-emitting apparatus according to claim 1, wherein said resistor film has a resistance value not allowing abnormal discharge to be generated between the intermediate area and said first wire.

22. An electron-emitting apparatus according to claim 4, wherein said resistor film has a resistance value not allowing abnormal discharge to be generated between the intermediate area and said first wire.

23. An electron-emitting apparatus according to claim 1, wherein said resistor film is a nitride film of alloy of germanium and transition metal.

24. An electron-emitting apparatus according to claim 4, wherein said resistor film is a nitride film of alloy of germanium and transition metal.

25. An electron-emitting apparatus according to claim 23, wherein the transition metal is at least one metal selected from a group consisting of chromium, titanium, tantalum, molybdenum and tungsten.

26. An electron-emitting apparatus according to claim 24, wherein the transition metal is at least one

metal selected from a group consisting of chromium, titanium, tantalum, molybdenum and tungsten.

27. An electron-emitting apparatus according to claim 1, wherein said resistor film has a relative resistance of $10^{-5} \times Va^2$ Ωcm or higher where Va is a potential difference between a potential applied to said first wire and the acceleration potential.

28. An electron-emitting apparatus according to claim 4, wherein said resistor film has a relative resistance of $10^{-5} \times Va^2$ Ωcm or higher where Va is a potential difference between a potential applied to said first wire and the acceleration potential.

29. An electron-emitting apparatus according to claim 1, wherein said resistor film has a relative resistance of 10^7 Ωcm or lower.

30. An electron-emitting apparatus according to claim 4, wherein said resistor film has a relative resistance of 10^7 Ωcm or lower.

31. An electron-emitting apparatus according to claim 1, wherein said resistor film has a thickness of 10 nm or thicker.

32. An electron-emitting apparatus according to claim 4, wherein said resistor film has a thickness of 10 nm or thicker.

33. An electron-emitting apparatus according to claim 1, wherein said resistor film has a thickness of 1 μm or thinner.

34. An electron-emitting apparatus according to claim 4, wherein said resistor film has a thickness of 1 μm or thinner.

35. An electron-emitting apparatus according to claim 1, wherein said resistor film has a resistance temperature coefficient of -1 %/°C or higher.

36. An electron-emitting apparatus according to claim 4, wherein said resistor film has a resistance temperature coefficient of -1 %/°C or higher.

37. An electron-emitting apparatus according to claim 1, wherein said resistor film has a negative resistance temperature coefficient.

38. An electron-emitting apparatus according to claim 4, wherein said resistor film has a negative resistance temperature coefficient.

39. An electron-emitting apparatus comprising:

electron-emitting devices;

driving wires connected to said electron-emitting devices;

an electron source substrate formed on which said electron-emitting devices and said driving wires are arranged;

an acceleration electrode mounted at a position facing said electron source substrate, said acceleration electrode being applied with an acceleration potential for accelerating electrons emitted from said electron-emitting devices;

a potential supply path for supplying the acceleration potential to said acceleration electrode, said potential supply path being introduced via an intermediate area on the side of said electron source substrate;

a first wire provided separately from said driving wires and formed on a ~~creepage~~ surface between the intermediate area and said driving wires; and

a periodical projection/recess structure formed on a ~~creepage~~ surface between said first wire and the intermediate area.

40. An electron-emitting apparatus comprising:

electron-emitting devices;

driving wires connected to said electron-emitting

devices;

an electron source substrate on which said electron-emitting devices and said driving wires;

an aceleration electrode mounted at a position facing said electron source substrate, said acceleration electrode being applied with an acceleration potential for accelerating electrons emitted from said electron-emitting devices;

a potential supply path for supplying the acceleration potential to said acceleration electrode, said potential supply path being introduced by passing through said electron source substrate;

a first wire provided separately from said driving wires and formed on a ~~creepage~~ surface between the intermediate area and said driving wires;

a sealing structure integrated with said potential supply path and hermetically mounted in a hole formed through said electron source substrate; and

a projection/recess structure formed on a ~~creepage~~ surface between said sealing structure and said first wire.

41. An electron-emitting apparatus according to claim 39, wherein said first wire is connected to an earth.

42. An electron-emitting apparatus according to

claim 40, wherein said first wire is connected to an earth.

43. An electron-emitting apparatus according to claim 1, wherein said first wire has a lead portion extending to an outside of a vacuum container containing said electron-emitting devices, said acceleration electrode and said first wire, a conductive contact member is in contact with the lead portion, and a predetermined potential is applied to said first wire via the conductive contact member.

44. An electron-emitting apparatus according to claim 4, wherein said first wire has a lead portion extending to an outside of a vacuum container containing said electron-emitting devices, said acceleration electrode and said first wire, a conductive contact member is in contact with the lead portion, and a predetermined potential is applied to said first wire via the conductive contact member.

45. An electron-emitting apparatus according to claim 39, wherein said first wire has a lead portion extending to an outside of a vacuum container containing said electron-emitting devices, said acceleration electrode and said first wire, a conductive contact member is in contact with the lead

portion, and a predetermined potential is applied to said first wire via the conductive contact member.

46. An electron-emitting apparatus according to claim 40, wherein said first wire has a lead portion extending to an outside of a vacuum container containing said electron-emitting devices, said acceleration electrode and said first wire, a conductive contact member is in contact with the lead portion, and a predetermined potential is applied to said first wire via the conductive contact member.

47. An electron-emitting apparatus according to claim 43, wherein the conductive contact member has an elastic portion and elasticity of the elastic portion pushes the lead portion of said first wire.

48. An electron-emitting apparatus according to claim 44, wherein the conductive contact member has an elastic portion and elasticity of the elastic portion pushes the lead portion of said first wire.

49. An electron-emitting apparatus according to claim 45, wherein the conductive contact member has an elastic portion and elasticity of the elastic portion pushes the lead portion of said first wire.

50. An electron-emitting apparatus according to claim 46, wherein the conductive contact member has an elastic portion and elasticity of the elastic portion pushes the lead portion of said first wire.

51. An electron-emitting apparatus according to claim 43, wherein the conductive contact member squeezes the lead portion of said first wire on said electron source substrate as well as said electron source substrate.

52. An electron-emitting apparatus according to claim 44, wherein the conductive contact member squeezes the lead portion of said first wire on said electron source substrate as well as said electron source substrate.

53. An electron-emitting apparatus according to claim 45, wherein the conductive contact member squeezes the lead portion of said first wire on said electron source substrate as well as said electron source substrate.

54. An electron-emitting apparatus according to claim 46, wherein the conductive contact member squeezes the lead portion of said first wire on said electron source substrate as well as said electron

source substrate.

55. An electron-emitting apparatus according to claim 51, wherein the conductive contact member includes opposing portions, a distance between the opposing portions is longer than a thickness of said electron source substrate and a distance between opposing portions in contact with the lead portion of said first wire is shorter than he thickness of said electron source substrate, when the conductive contact member does not squeeze said electron source substrate.

56. An electron-emitting apparatus according to claim 52, wherein the conductive contact member includes opposing portions, a distance between the opposing portions is longer than a thickness of said electron source substrate and a distance between opposing portions in contact with the lead portion of said first wire is shorter than he thickness of said electron source substrate, when the conductive contact member does not squeeze said electron source substrate.

57. An electron-emitting apparatus according to claim 53, wherein the conductive contact member includes opposing portions, a distance between the opposing portions is longer than a thickness of said electron source substrate and a distance between

opposing portions in contact with the lead portion of said first wire is shorter than he thickness of said electron source substrate, when the conductive contact member does not squeeze said electron source substrate.

58. An electron-emitting apparatus according to claim 54, wherein the conductive contact member includes opposing portions, a distance between the opposing portions is longer than a thickness of said electron source substrate and a distance between opposing portions in contact with the lead portion of said first wire is shorter than he thickness of said electron source substrate, when the conductive contact member does not squeeze said electron source substrate.

59. An electron-emitting apparatus according to claim 51, further comprising a second wire different from said acceleration electrode disposed on an acceleration electrode substrate on which said acceleration electrode is formed, wherein said conductive contact member is electrically connected to both the lead portions of said first and second wires.

60. An electron-emitting apparatus according to claim 44, further comprising a second wire different from said acceleration electrode disposed on an acceleration electrode substrate on which said

acceleration electrode is formed, wherein said conductive contact member is electrically connected to both the lead portions of said first and second wires.

61. An electron-emitting apparatus according to claim 45, further comprising a second wire different from said acceleration electrode disposed on an acceleration electrode substrate on which said acceleration electrode is formed, wherein said conductive contact member is electrically connected to both the lead portions of said first and second wires.

62. An electron-emitting apparatus according to claim 46, further comprising a second wire different from said acceleration electrode disposed on an acceleration electrode substrate on which said acceleration electrode is formed, wherein said conductive contact member is electrically connected to both the lead portions of said first and second wires.

63. An electron-emitting apparatus according to claim 59, wherein at least a portion of the conductive contact member is squeezed between said electron source substrate and the acceleration electrode substrate, and the conductive contact member is in contact with both the lead portions of said first and second wires on said electron source substrate and on the acceleration

electrode substrate.

64. An electron-emitting apparatus according to claim 60, wherein at least a portion of the conductive contact member is squeezed between said electron source substrate and the acceleration electrode substrate, and the conductive contact member is in contact with both the lead portions of said first and second wires on said electron source substrate and on the acceleration electrode substrate.

65. An electron-emitting apparatus according to claim 61, wherein at least a portion of the conductive contact member is squeezed between said electron source substrate and the acceleration electrode substrate, and the conductive contact member is in contact with both the lead portions of said first and second wires on said electron source substrate and on the acceleration electrode substrate.

66. An electron-emitting apparatus according to claim 62, wherein at least a portion of the conductive contact member is squeezed between said electron source substrate and the acceleration electrode substrate, and the conductive contact member is in contact with both the lead portions of said first and second wires on said electron source substrate and on the acceleration

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electrode substrate.

67. An electron-emitting apparatus according to claim 43, wherein the conductive contact member has a portion with conductivity and pressure sensitive adhesion, the portion with the pressure sensitive adhesion being in contact with the lead portion of said first wire.

68. An electron-emitting apparatus according to claim 44, wherein the conductive contact member has a portion with conductivity and pressure sensitive adhesion, the portion with the pressure sensitive adhesion being in contact with the lead portion of said first wire.

69. An electron-emitting apparatus according to claim 45, wherein the conductive contact member has a portion with conductivity and pressure sensitive adhesion, the portion with the pressure sensitive adhesion being in contact with the lead portion of said first wire.

70. An electron-emitting apparatus according to claim 46, wherein the conductive contact member has a portion with conductivity and pressure sensitive adhesion, the portion with the pressure sensitive

adhesion being in contact with the lead portion of said first wire.

71. An electron-emitting apparatus according to claim 67, wherein another member as a path or applying a predetermined potential to said first wire is in contact with another portion with the pressure sensitive adhesion of the conductive contact member.

72. An electron-emitting apparatus according to claim 68, wherein another member as a path or applying a predetermined potential to said first wire is in contact with another portion with the pressure sensitive adhesion of the conductive contact member.

73. An electron-emitting apparatus according to claim 69, wherein another member as a path or applying a predetermined potential to said first wire is in contact with another portion with the pressure sensitive adhesion of the conductive contact member.

74. An electron-emitting apparatus according to claim 70, wherein another member as a path or applying a predetermined potential to said first wire is in contact with another portion with the pressure sensitive adhesion of the conductive contact member.

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75. An electron-emitting apparatus according to claim 43, wherein the conductive contact member contacts a lead portion extended on a surface same as the surface on which said first line is formed.

76. n electron-emitting apparatus according to any claim 44, wherein the conductive contact member contacts a lead portion extended on a surface same as the surface on which said first line is formed.

77. An electron-emitting apparatus according to claim 45, wherein the conductive contact member contacts a lead portion extended on a surface same as the surface on which said first line is formed.

78. An electron-emitting apparatus according to claim 46, wherein the conductive contact member contacts a lead portion extended on a surface same as the surface on which said first line is formed.

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79. An electron-emitting apparatus according to claim 43, further comprising a conductive cover covering at least a portion of the vacuum container wherein the conductive contact member is electrically connected to said cover.

80. An electron-emitting apparatus according to

claim 44, further comprising a conductive cover covering at least a portion of the vacuum container wherein the conductive contact member is electrically connected to said cover.

81. An electron-emitting apparatus according to claim 45, further comprising a conductive cover covering at least a portion of the vacuum container wherein the conductive contact member is electrically connected to said cover.

82. An electron-emitting apparatus according to claim 46, further comprising a conductive cover covering at least a portion of the vacuum container wherein the conductive contact member is electrically connected to said cover.

83. An electron-emitting apparatus according to claim 79, wherein the conductive contact member is fixed to said cover.

84. An electron-emitting apparatus according to claim 80, wherein the conductive contact member is fixed to said cover.

85. An electron-emitting apparatus according to claim 81, wherein the conductive contact member is

fixed to said cover.

86. An electron-emitting apparatus according to claim 82, wherein the conductive contact member is fixed to said cover.

87. An electron-emitting apparatus according to claim 43, wherein the conductive contact member is connected to an electrical cable, and a predetermined potential is applied to the conductive contact member via the electrical cable.

88. An electron-emitting apparatus according to claim 44, wherein the conductive contact member is connected to an electrical cable, and a predetermined potential is applied to the conductive contact member via the electrical cable.

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89. An electron-emitting apparatus according to claim 45, wherein the conductive contact member is connected to an electrical cable, and a predetermined potential is applied to the conductive contact member via the electrical cable.

90. An electron-emitting apparatus according to claim 46, wherein the conductive contact member is connected to an electrical cable, and a predetermined

potential is applied to the conductive contact member via the electrical cable.

91. An electron-emitting apparatus according to claim 1, wherein the lead portion of said first wire and the lead portions of said driving wires are connected to a common flexible printed circuit.

92. An electron-emitting apparatus according to claim 4, wherein the lead portion of said first wire and the lead portions of said driving wires are connected to a common flexible printed circuit.

93. An electron-emitting apparatus according to claim 39, wherein the lead portion of said first wire and the lead portions of said driving wires are connected to a common flexible printed circuit.

94. An electron-emitting apparatus according to claim 40, wherein the lead portion of said first wire and the lead portions of said driving wires are connected to a common flexible printed circuit.

95. An electron-emitting apparatus according to claim 1, wherein an acceleration electrode substrate on which said acceleration electrode is formed constitutes a portion a vacuum container, and the acceleration

electrode has a conductive layer formed outside of the vacuum container.

96. An electron-emitting apparatus according to claim 4, wherein an acceleration electrode substrate on which said acceleration electrode is formed constitutes a portion a vacuum container, and the acceleration electrode has a conductive layer formed outside of the vacuum container.

97. An electron-emitting apparatus according to claim 39, wherein an acceleration electrode substrate on which said acceleration electrode is formed constitutes a portion a vacuum container, and the acceleration electrode has a conductive layer formed outside of the vacuum container.

98. An electron-emitting apparatus according to claim 40, wherein an acceleration electrode substrate on which said acceleration electrode is formed constitutes a portion a vacuum container, and the acceleration electrode has a conductive layer formed outside of the vacuum container.

99. An electron-emitting apparatus according to claim 95, wherein said first wire is applied with a predetermined potential via the conductive layer.

100. An electron-emitting apparatus according to claim 96, wherein said first wire is applied with a predetermined potential via the conductive layer.

101. An electron-emitting apparatus according to claim 97, wherein said first wire is applied with a predetermined potential via the conductive layer.

102. An electron-emitting apparatus according to claim 98, wherein said first wire is applied with a predetermined potential via the conductive layer.

103. An electron-emitting apparatus according to claim 95, wherein the conductive layer is electrically connected to a conductive cover covering at least a portion of a vacuum container constituted of the acceleration electrode substrate.

104. An electron-emitting apparatus according to claim 96, wherein the conductive layer is electrically connected to a conductive cover covering at least a portion of a vacuum container constituted of the acceleration electrode substrate.

105. An electron-emitting apparatus according to claim 97, wherein the conductive layer is electrically connected to a conductive cover covering at least a

portion of a vacuum container constituted of the acceleration electrode substrate.

106. An electron-emitting apparatus according to claim 98, wherein the conductive layer is electrically connected to a conductive cover covering at least a portion of a vacuum container constituted of the acceleration electrode substrate.

107. An electron-emitting apparatus according to claim 103, wherein an electrical connection between the conductive layer and the conductive cover is established by a member having elasticity and conductivity.

108. An electron-emitting apparatus according to claim 104, wherein an electrical connection between the conductive layer and the conductive cover is established by a member having elasticity and conductivity.

109. An electron-emitting apparatus according to claim 105, wherein an electrical connection between the conductive layer and the conductive cover is established by a member having elasticity and conductivity.

110. An electron-emitting apparatus according to claim 106, wherein an electrical connection between the conductive layer and the conductive cover is established by a member having elasticity and conductivity.

111. An electron-emitting apparatus comprising:

electron-emitting devices;

driving wires connected to said electron-emitting devices;

an electron source substrate on which said electron-emitting devices and said driving wires are arranged;

an acceleration electrode substrate facing said electron source substrate;

an acceleration electrode mounted on said acceleration electrode substrate and being applied with an acceleration potential for accelerating electrons emitted from said electron-emitting devices;

a potential supply path for supplying the acceleration potential to said acceleration electrode, said potential supply path being introduced via an intermediate area on the side of said electron source substrate;

a first wire provided separately from said driving wires and formed on a ~~creepage~~ surface between the intermediate area and said driving wires; and

a second wire provided separately from said acceleration electrode around said acceleration electrode on said acceleration electrode substrate,

wherein a space surrounded by said electron source substrate, said acceleration electrode substrate and a peripheral frame is maintained as a vacuum atmosphere, a lead portion of said first wire is extended outside of the vacuum atmosphere, a lead portion of said second wire is extended outside of the vacuum atmosphere, and a conductive contact member is in contact with the lead portions of said first and second wires.

112. An electron-emitting apparatus according to claim 111, wherein the conductive contact member is in contact with both the lead portions of said first and second wires to apply a predetermined common potential to both the lead portions.

113. An electron-emitting apparatus according to claim 111, wherein the lead portion of said first wire in contact with the conductive contact member is formed on said electron source substrate, and the lead portion of said second wire in contact with the conductive contact member is formed on said acceleration electrode substrate.

114. An electron-emitting apparatus according to

claim 111, wherein the conductive contact member has an elastic portion which functions to push the lead portions of said first and second wires.

115. An electron-emitting apparatus according to claim 1, wherein the acceleration potential is higher by 3 kV or more than the lowest potential to be applied to said driving wires to drive said electron-emitting devices.

116. An electron-emitting apparatus according to claim 4, wherein the acceleration potential is higher by 3 kV or more than the lowest potential to be applied to said driving wires to drive said electron-emitting devices.

117. An electron-emitting apparatus according to claim 39, wherein the acceleration potential is higher by 3 kV or more than the lowest potential to be applied to said driving wires to drive said electron-emitting devices.

118. An electron-emitting apparatus according to claim 40, wherein the acceleration potential is higher by 3 kV or more than the lowest potential to be applied to said driving wires to drive said electron-emitting devices.

119. An electron-emitting apparatus according to claim 111, wherein the acceleration potential is higher by 3 kV or more than the lowest potential to be applied to said driving wires to drive said electron-emitting devices.

120. An electron-emitting apparatus according to claim 1, further comprising a phosphor which emits light upon incidence of electrons accelerated by the acceleration potential.

121. An electron-emitting apparatus according to claim 4, further comprising a phosphor which emits light upon incidence of electrons accelerated by the acceleration potential.

122. An electron-emitting apparatus according to claim 39, further comprising a phosphor which emits light upon incidence of electrons accelerated by the acceleration potential.

123. An electron-emitting apparatus according to claim 42, further comprising a phosphor which emits light upon incidence of electrons accelerated by the acceleration potential.

124. An electron-emitting apparatus according to

claim 111, further comprising a phosphor which emits light upon incidence of electrons accelerated by the acceleration potential.

125. An image-forming apparatus comprising an electron-emitting apparatus recited in claim 1 and a phosphor which emits light upon incidence of electrons accelerated by the acceleration potential.

126. An image-forming apparatus comprising an electron-emitting apparatus recited in claim 4 and a phosphor which emits light upon incidence of electrons accelerated by the acceleration potential.

127. An image-forming apparatus comprising an electron-emitting apparatus recited in claim 39 and a phosphor which emits light upon incidence of electrons accelerated by the acceleration potential.

128. An image-forming apparatus comprising an electron-emitting apparatus recited in claim 40 nd a phosphor which emits light upon incidence of electrons accelerated by the acceleration potential.

129. An image-forming apparatus comprising an electron-emitting apparatus recited in claim 111 and a phosphor which emits light upon incidence of electrons accelerated by the acceleration potential.